

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023548**Date Inspected:** 06-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 11

This QA Inspector randomly observed the following work in progress in the Bay 11:

SMAW welding of weld joint BK012A1-001-043 located on PCMK OBG bike path. Welders were identified as 046704, 041713. QC was identified as ZPMC CWI Yu Dong Ping (QC1). Weld variables recorded by QC1 appeared to comply with WPS-B-P-2212-TC-U4c as verbally identified by QC1.

SMAW welding of weld joint BK011A1-001-043 located on PCMK OBG bike path. Welder was identified as 041271. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-P-2212-TC-U4c as verbally identified by QC1.

OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

SMAW welding of temporary alignment plates between side plate and corner assembly, bikepath (south) side located on PCMK OBG 13BE. Welder was identified as 058592. QC was identified as ZPMC CWI Li Yan Hua (QC2). Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zhan Hai Feng (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to

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comply with WPS-B-P-2114-FCM-1 as verbally identified by QCA2.

SMAW repair welding of weld joints SEG3019AA-003, 014 located on PCMK OBG 14E. Welder was identified as 066733. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20923 as presented to this QA Inspector and verbally identified by QCA2.

SMAW repair welding of weld joints SEG3019AW-118, 122, 128, 133, 138, 143, 168 located on PCMK OBG 14E. Welders were identified as 215553, 044779. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-SMAW-1G(1F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20791 as presented to this QA Inspector and verbally identified by QCA2.

FCAW welding of weld joints SA3013A-203, 217, 223 located at the PCMK OBG 13BE. Welder was identified as 050977. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2232-ESAB-1 as verbally identified by QCA2.

SMAW repair welding of various weld joints located on PCMK OBG 13BE at panel point 121.5, at floor beam to bottom plate and bottom plate I-ribs. Welder was identified as 058102. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair-1 as verbally identified by QCA2. QCA2 informed this QA Inspector that the repairs were the response to ZPMC and ABF visual inspection. See the photo below of some of the repairs.

FCAW welding of weld joint SEG3009A-008 located at the PCMK OBG 13AE, bikepath (south) side, bottom plate to side plate. Welder was identified as 052696. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2231T-ESAB-1 as verbally identified by QCA3.

FCAW welding of weld joint SEG3009A-001 located at the PCMK OBG 13AE, crossbeam (north) side, bottom plate to side plate. Welder was identified as 055564. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2231T-ESAB-1 as verbally identified by QCA3.

At approximately 0300 hours this QA Inspector heard a single loud bang while standing at the 13AE/13BE transverse joint, crossbeam (north) side. This QA Inspector then performed visual inspection of base metal and welds in the area. No apparent indications were observed.

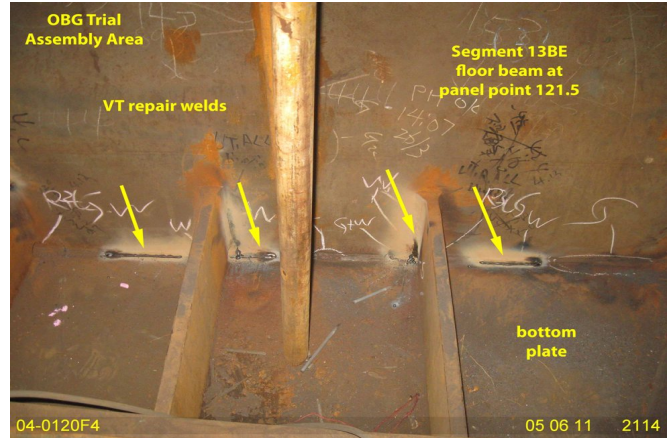
ZPMC personnel positioned 5 transport/lift vehicles under OBG Segment 12W and moved the segment approximately 5 meters from OBG Segment 13AE. Segment 12E was lifted from OBG trial Assembly Area by the ZPMC 2200 ton floating crane. With the segment suspended, the floating crane moved outboard of the ship at the end of the Heavy Dock. See photo below of Segment 12E suspended by the ZPMC 2200 floating crane as the

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crane barge was being moved outboard of the ship.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 15000026784, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet, George	Quality Assurance Inspector
Reviewed By:	Riley, Ken	QA Reviewer
